Acknowledgements

The Steam Digest 2001 owes its existence to the U.S. Department of Energy's Office of Industrial Technologies (OIT), led by Deputy Assistant Secretary Denise Swink. Special Assistant Marsha Quinn enables us to interact effectively throughout OIT. Mr. Fred Hart of DOE provides dedicated program management for the steam effort, while Mr. Christopher Russell of the Alliance to Save Energy leads program marketing and outreach. Dr. Anthony Wright of Oak Ridge National Laboratory leads our technical agenda. Ms. Rachel Madan of the Alliance provides additional program support. A steering committee consisting of steam experts from industry, business, government, trade associations, and national labs provides guidance to our effort. Mr. Bill Pitkin of the National Insulation Association is the Chair of this Steering Committee. His rapport with government and business leaders greatly facilitates all of our accomplishments. Ms. Debbie Bloom of ONDEO Nalco is Vice Chair and a peerless referee of our technical content. Mr. Fred Fendt of Rohm & Haas is the committee's Executive-at-Large, giving voice to the energy end-user's perspective. Mr. Glenn Hahn of Spirax Sarco provides multifaceted leadership within the Steam and the overall BestPractices steering committee structures.

Each of these individuals provided a unique and valuable contribution to the BestPractices Steam Steering Committee throughout 2001:

Bob Bessette

Council of Industrial Boiler Owners

Charles Cottrell

North American Insulation Manufacturers

Association **Lee Doran**

National Board of Boiler and Pressure Vessel

Inspectors

Beverly France
Industrial Interactions
Elodie Geoffroy-Michaels

Turbo Steam **Robert Griffin**

Enbridge Consumers Gas

Bill Haman Iowa Energy Center

Tom Henry

Armstrong Services, Inc.

Ron Holt Swagelok Walter Johnson

Association of Energy Engineers

Mike Makofsky
Shannon Enterprises
Anthony Martocci
Bethlehem Steel
Jim McDermott
Yarway Corp.
Kelly Paffel

Plant Evaluations & Support

Miriam Pve

New York State Energy Research &

Development Authority

Doug Riley

Millennium Chemicals

Mike Sanders

Sunoco

Thomas Scheetz

BASF **John Todd** Yarway Corp.

All of our steering committee members volunteer their time to BestPractices Steam, and our appreciation is underscored here. A previously unheralded contributor to the program is Mr. **Carlo LaPorta** of Future Tech, who is the "utility in-fielder" on our management team.

We thank each author for his or her contribution to this compendium. Mr. **David Jaber** provided several articles; he has since left the employ of the Alliance to Save Energy and we wish him well in his new endeavors.

As was the case last year, a note of thanks goes to Ms. **Sharon Sniffen** of ORC Macro International, whose staff gave *Steam Digest 2001* this final form.

Introduction

Fred Hart, U.S. Department of Energy Christopher Russell, Alliance to Save Energy Anthony Wright, Oak Ridge National Laboratory September 2001

> BestPractices Steam, which began in 1997 as the Steam Challenge, is one component of the U.S. Department of Energy's Energy Management BestPractices industrial technology assistance effort. BestPractices spearheads the implementation approach for the Industries of the Future (IOF) program. The activities of BestPractices are broad based, covering all aspects of the IOF program and include energy assessments, sponsorship of emerging technologies, and energy management. BestPractices activities assist the nine IOF industries to identify and realize their best energy efficiency and pollution prevention options from a systems and life-cycle cost perspective. In the interest of documenting and communicating best-in-class applications of industrial energy technologies, this volume is made freely available to the industrial community. It is hoped that it will influence plant management for the betterment of U.S. industrial energy consumption, productivity, competitiveness, and shareholder value.

> Steam Digest 2001 chronicles our contributions to the industrial trade press over the past year. As in last year's Steam Digest, we present articles that cover technical, financial, and managerial aspects of steam optimization. A number of these articles detail plant- or company-specific success stories. Other articles describe technical opportunities and how to measure their impact on plant performance.

Through 2001, BestPractices Steam continued to make progress in developing tools to assist steam users in achieving system improvements. In one sense, our progress can be measured in the number and quality of resources produced. Instruments such as the spreadsheet-based *Steam Scoping Tool* and the *3E Plus* insulation evaluation software have become popular with plant managers as diagnostic tools. A series of Steam Tip Sheets—now numbering 16—are useful one-page references that identify distinct energy saving opportunities and demonstrate the calculation of related financial impacts. Case studies are an in-depth

demonstration of site-specific experiences with steam optimization programs. The ongoing conduct of workshops and trade show participation makes the BestPractices name visible on a regional basis.

Additionally, the Steam Clearinghouse provides basic reference, assistance, and referral to callers who use the toll-free number. Steam users, consultants, vendors, and utilities all use the Clearinghouse at no cost to obtain the resources described here. The *Steaming Ahead* newsletter and companion website (www.steamingahead.org) provide the steam community with regular updates on program progress. The public may also download software and references from that website. There are more tools to come in the future: results of the Steam Market Assessment, development of detailed Steam Technical Fact Sheets, and enhancements to our Steam Workshops.

While the product and service offerings of BestPractices Steam are many and varied, the current challenge is to get this information in the right hands. Energy efficiency is not an end in itself, but a means toward the very goals sought daily by plant managers and their corporate leaders. Both technical and business leaders need access to BestPractices Steam in order for our information to be thoroughly effective. This is our leading mandate for 2002, and beyond.

For more information, please contact:

U.S. DOE Office of Industrial Technologies Resource Room

Phone: (202) 586-2090

The OIT Clearinghouse

Email: clearinghouse@ee.doe.gov

Phone: (800) 862-2086

Or visit our websites:

The U.S. Department of Energy's Office of Industrial Technologies: http://www.oit.doe.gov/bestpractices/steam

The *Steaming Ahead* resource page: http://www.steamingahead.org